

preceding or succeeding the page that was to be output to the malfunctioning printer ejects paper face-up or face-down.

The preceding pages and succeeding pages will be explained in more detail. When a range of pages is given among a plurality of ranges of pages obtained by dividing whole pages to be printed, the "preceding pages" indicate pages preceding to the given range of pages. For example, the preceding pages of "pages 4 ~ 6" in the setting area 34 in Fig. 3 are "pages 1 ~ 3". Similarly, when a range of pages is given among a plurality of ranges of pages obtained by dividing the whole pages to be printed, the "succeeding pages" indicate pages succeeding to the given range of pages. For example, the succeeding pages of "pages 4 ~ 6" in the setting area 34 in Fig. 3 are "pages 7 ~ 9".

Note, there are cases that the pages which the malfunctioning printer is to print include the first or final page of the whole job, and the preceding or succeeding pages may indicate a range pages other than the range of pages as described above. These cases will be described later in detail, and the detailed explanation is omitted here.

If application of such a reprint scheme is inappropriate, or if item 43 has been selected, reprint is carried out using another printer and bin not selected as a printer for distributed printing. Area 44

makes it possible to designate any printer and bin as the destination for the reprint operation.

A setting item 45 is for selecting whether or not to display a report relating to reprint at the time of a malfunction. If item 45 has been selected, then, in the event of a malfunction, which printer malfunctioned and which page was reprinted at which printer and in which bin is displayed on display unit 28. If reprint also fails, then which page failed to be reprinted is displayed on the display unit 28.

Next, processing for distributed printing according to the embodiment of the present invention will be described.

Figs. 5 to 8 are flowcharts useful in describing processing for distributed printing according to this embodiment of the present invention. Reference will be had to these flowcharts to describe the processing in detail. The processing indicated by these flowcharts is implemented by the CPU 22 of the information processing apparatus (host computer), which executes the processing based upon control code in the distributed-print program of the present invention. (The program has been stored in ROM 23 or on a storage medium described later.)

If the CPU 22 senses at step S51 that a print request has been issued from the printing unit of application program 11 to the virtual distributed printer 12, the application printing unit 29 judges that

this print request is that of a distributed-print job and delivers the print request to the distributed printing unit 210 via the image management unit 25. Next, at step S52, the distributed printing unit 210 divides up the print instruction, namely the print request, in accordance with the distribution setting that has been made by the virtual distributed printer 12 (i.e., the job is divided into distributed print jobs). The divided print instructions are delivered to the printer drivers corresponding to the printers to that are to perform distributed printing, and print data for the distributed print jobs is generated. Conceivable methods that can be used are a generally known method of specifying the start page and end page of a PDL code instead of performing physical division of the file, and a generally known method of physically dividing the file, e.g., a method of dividing the job by binarizing the print instruction output by the application and physically dividing an EMF that has been spooled by the operating system.

The distributed jobs obtained by division at step S52 are transmitted from the virtual distributed printer 12 to the printers (distributed printers) specified among the printers 13 to 16 by the configuration screen shown in Fig. 3.

Next, the status of each distributed printer is acquired at step S54. For example, if printing by